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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Karl-Erik Neumann

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02/10/2009

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EXAMINER

FERGUSON, MICHAEL P

ART UNIT

PAPER NUMBER

3679

MAIL DATE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/573,515	<b>Applicant(s)</b> NEUMANN, KARL-ERIK	
	<b>Examiner</b> MICHAEL P. FERGUSON	<b>Art Unit</b> 3679	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                          | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 2, 6 and 7 are objected to because of the following informalities:

Claim 2 (line 3) recites "devices or a". It should recite --devices and a--.

Claim 6 (line 1) recites "to claim 1". It should recite --to claim 2--.

Claim 7 (line 1) recites "to claim 1". It should recite --to claim 2--.

For the purpose of examining the application, it is assumed that appropriate correction has been made.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-4 and 6-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 (lines 1-2) recites "A parallel kinematic machine having a machine-connected positioning head and at least three machine setting devices". Claim 1 fails to positively claim any structural limitations which clearly define what structurally constitutes such positioning head and machine setting devices. Accordingly, one is unable to properly determine the metes and bounds of such claim. Claims 2-4 and 6-9 depend from claim 1 and are likewise rejected.

Claim 2 (lines 4-6) recites "wherein one end of each setting device is mounted for rotation about the wobbler... via joint mounting means on opposing sides of the wobbler

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to the machine-connected positioning head or to the frame or both". It is unclear as to how each setting device can be mounted for rotation about the wobbler via joint mounting means on opposing sides of the wobbler and to both the machine-connected positioning head and the frame.

4. Claims 1, 2, 6, 7 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships which render the claims indefinite are as follows:

Claim 1 (lines 7-13) recites "said joints each comprising a wobbler that... extends through a setting-device bearing means around the wobbler, and (3) includes an external bearing mounting surface or an external bearing surface on which its respective setting device is mounted". Claim 1 fails to clearly and positively claim the structural engagement and the functional relationship between the setting-device bearing means and each of the positioning head, the machine setting devices and the external bearing mounting surface.

Claim 2 (lines 2-4) recites "the joints are disposed between... the setting devices or a frame". Claim 2 fails to clearly and positively claim the structural engagement and the functional relationship between the frame and each of the positioning head and the machine setting devices.

Claims 6 and 7 (line 2) each recite "each joint is firmly connected to a supporting shaft". Claims 6 and 7 each fail to clearly and positively claim the structural

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engagement and the functional relationship between the supporting shaft and each of the setting-device bearing means, the external bearing mounting surface, the main axis and the wobbler axis.

Claim 9 (lines 2-3) recites "an angle  $\alpha$  is orientated in relation to a supporting shaft when the setting device is fitted to... a frame". Claim 9 fails to clearly and positively claim the structural engagement and the functional relationship between the supporting shaft and each of the setting-device bearing means, the external bearing mounting surface, the main axis and the wobbler axis. Claim 9 fails to clearly and positively claim the structural engagement and the functional relationship between the frame and each of the positioning head and the machine setting devices.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

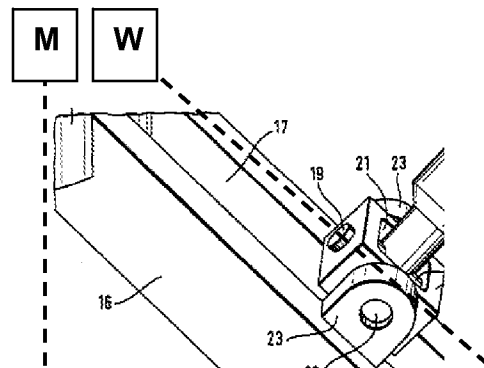
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3 and 6-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Schaeffler Waelzlager (DE 199 04 702).

As to claim 1, Schaeffler Waelzlager discloses a parallel kinematic machine having a machine-connected positioning head **10** and at least three machine setting devices **5,7**, the parallel kinematic machine comprising at least three joints **8**, each of which connects a respective machine setting device mounted to the machine-connected positioning head and cooperates with the other joints in the parallel kinematic machine

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to move the machine-connected positioning head in space, the joints each comprising a wobbler **8** that (1) is mounted to the respective machine characterized in that the setting device and allows rotation of the respective machine setting device about a wobbler axis **W** (Figure 2 reprinted below with annotations), (2) is, in turn, mounted for rotation about a main axis **M** that extends through a setting-device bearing means **15,16** around the wobbler, and (3) wherein the wobbler includes an external bearing mounting surface **18** or an external bearing surface on which its respective setting device is mounted (Figures 1-2).



As to claim 2, Schaeffler Waelzlager discloses a machine joint characterized in that the joints **8** are disposed between the setting devices **5,7** and the machine-connected positioning head **10** or, alternatively, between the setting devices and a frame **3**, wherein one end of each setting device is mounted for rotation about the wobbler **8** which, in turn, is rotatably mounted via joint mounting means on opposing sides of the wobbler to the machine-connected positioning head or to the frame or both for rotation about the main axis (Figure 2).

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As to claim 3, Schaeffler Waelzlager discloses a machine joint characterized in that, for each joint **8**, the wobbler axis **W** and the main axis **M** mutually intersect at an angle  $\alpha$ , where  $1^\circ < \alpha < 45^\circ$  (Figure 2).

As to claim 6 Schaeffler Waelzlager discloses a machine joint characterized in that each joint **8** is firmly connected to a supporting shaft **22** which has two ends that are rotatably connected to the positioning head **10** and/or the frame **3** (Figure 2).

As to claim 7, Schaeffler Waelzlager discloses a machine joint characterized in that each joint **8** is rotatably connected to a supporting shaft **22** which includes two ends of which at least one end is connected to the positioning head **10** and/or the frame **3** (Figure 2).

As to claim 8, Schaeffler Waelzlager discloses a machine joint characterized in that one end of the supporting shaft **22** is inserted in a first joint mounting means **23** which is secured axially by a clamp coupling (supporting shaft **22** is axially clamped/coupled between opposing flanges **23**; Figure 2); and in that the other end of the supporting shaft is firmly connected to a second joint mounting means **23** (Figure 2).

As to claim 9, Schaeffler Waelzlager discloses a machine joint characterized in that an angle  $\alpha$  is orientated in relation to a supporting shaft **22** when the setting device **5,7** is fitted to the positioning head **10** and/or a frame **3**, so as to permit tilting between the setting devices and their respective wobblers **8** by a rotation of the wobblers about the main axis **M** (Figure 2).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schaeffler Waelzlager.

As to claim 4, Schaeffler Waelzlager fails to disclose a machine joint wherein, for each joint, the wobbler axis and the main axis mutually intersect at an angle wherein the wobbler axis and the main axis intersect at an angle  $\alpha$  between 5° and 20°. Schaeffler Waelzlager does not disclose any structural or functional significance as to the specific angle at which the wobbler axis and the main axis intersect.

The applicant is reminded that a change in the shape of a prior art device, wherein there is no structural or functional significance disclosed as to the specific shape of an element, is a design consideration within the skill of the art. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the machine joint disclosed by Schaeffler Waelzlager wherein the wobbler axis and the main axis intersect at an angle  $\alpha$  between 5° and 20° as Schaeffler Waelzlager does not disclose any structural or functional significance as to the specific angle at which the wobbler axis and the main axis intersect, and as such practice is a design consideration within the skill of the art which would yield expected and predictable results.



***Response to Arguments***

9. Applicant's arguments with respect to claims 1-4 and 6-9 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. The newly added limitations of "A parallel kinematic machine having a machine-connected positioning head and at least three machine setting devices... said joints each comprising" in claim 1 (lines 1-7) necessitated the new grounds of rejection. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL P. FERGUSON whose telephone number is (571)272-7081. The examiner can normally be reached on M-F (6:30am-3:00pm).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571)272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MPF  
02/09/09

/Michael P. Ferguson/  
Primary Examiner, Art Unit 3679